

# COTS Parts Evaluation Results

## Jet Propulsion Laboratory

Task	Part No.	Mfg.	Process	Function	CA	SEL	SEU	TID	LV	LT	Mrad	OG	MS	Diam	Bl	Proj	Lev	CF	Report	Comments
RH Low Power	UT54ACS04	UTMC	RH 1.2u	Inverter				>100	3V							New	x		x	
RH Low Power	UT54ACS163	UTMC	RH 1.2u	Counter				>100	3V							New	x		x	
RH Low Power	UT54ACS273	UTMC	RH 1.2u	Flip-Flop				>100	3V							New	x		x	
COTS Evaluation	DA28F016SV	Intel	ETOX III	Flash M.	Pass			8				Pass	Yes	Yes	1 rej	Mars	x	x	x	Bl ss = 6
COTS Evaluation	LT1114	Linear T		IC								Yes	Yes						x	
COTS Evaluation	MCR265	Mot		SCR								Pass	Yes	Yes					x	
COTS Evaluation	AM28F020	AMD		Flash M.								Pass	Yes	Yes					x	
COTS Evaluation	CAT28F020	Catalyst		Flash M.								Pass	Yes	Yes					x	
COTS Evaluation	ADS937	Datel	Hybrid	A/D	Pass	10		25								New	x		x	Use latchup mitigation
COTS Evaluation	LMX23XX	NSC	BiCMOS	PLL	Pass	>100	Pass	25								MLS	x			SEU/TID accepted for MLS
COTS Evaluation	TBD	Qtech	SOI ASIC	Osc						TBD	TBD	TBD				X2000	x			In process,tiny package
COTS Evaluation	MCM6246	Mot	CMOS	SRAM						3.6	-55C									Limited Voltage range
COTS Evaluation	CXK584000TM	Sony	CMOS	SRAM						3	-55C									Passed V & Mil T range
COTS Evaluation	HM628512	Hitachi	CMOS	SRAM						3.6	-55c									Worked at 3V @ -20C
COTS Evaluation	SPT7725	SPT	Bipolar	A/D	Pass	>100		>100										x		
COTS Evaluation	HI1276	Harris	Bipolar	A/D		>100												x		
COTS Evaluation	LTC1419	LTN	CMOS	A/D	Pass	>100												x		
COTS Evaluation	7809 LPTRP	SEI	CMOS	A/D	Pass	19.9		10										x		Will be used with LPT/Rpak
COTS Evaluation	AD7714-3	ADI	CMOS	A/D	Pass	55												x		
COTS Evaluation	MAX101	Maxim	Bipolar	A/D	Pass	Fail													x	Failed SEL

## Legend

CA-construction analysis  
SEL-single event latchup (LET)  
SEU-single effects upset  
TID-total ionization dose (Krad)  
LV-low voltage/power operation  
LT-low temperature operation  
Mrad-mega rad  
OG-outgassing test to NASA spec  
MS-moisture sensitivity  
Dlam-delamination (C-SAM)  
Bl-burn-in  
CF-cots form/risk assessment